

REMARKS

Receipt of the Office Action of July 22, 2005 is respectfully acknowledged..

Claims 9 - 16 are pending. These have been subjected to a restriction requirement. In response to this restriction requirement, claims 9 - 14 and 15 have been elected and claim 16 now canceled.

Elected claims 9 - 14 have been rejected under 35 USC 112, second paragraph as indefinite and as "failing to set forth the subject matter which applicant(s) regard as their invention." These rejections are respectfully traversed. Nevertheless, claims 9, 10, 12 and 14 have been amended in a bona fide effort to overcome these rejections.

Next the examiner rejects claims 9, 11, 12, 13 and 14 as unpatentable under 35 USC 103(a) over Krause et al in view of Draus, claim 11 is rejected as unpatentable under 35 USC 103(a) over Kraus et al in view of Draus and De Boom et al, and claim 15 is rejected as unpatentable under 35 USC 103(a) over Draus.

These rejections are respectfully traversed, because none of these references teach the use a sterile liquid, namely pure sterilized water, for calibration or re-calibration and sending the liquid to a drain afterwards. It should be understood that the terms drain pipe and drain are being used in the literal sense of their meaning. Everything going down the drain pipe and the drain is disposed of. It is never re-used on the rig. Such is not the case with any of the references cited.

Krause et al. discloses a rig including a source of water, a stand for flow meters and drain pipes. The drain pipes are not connected to a drain. They are used to drain water from prover tanks 22, 24, 26, 28, 30, 32 to a storage tank 12, which is used to feed the supply tank 16 of the rig. Krause et al. reuse water, which has already been used in previous calibration cycles.

Because of this, the use of a rig as described by Krause et al requires that all meters to be cleaned prior to the actual calibration process (see e.g. col. 3, lines 66 ff). Even cleaned meters may have remaining contaminants which can later on dissolve in the water used during calibration. This can result in contaminated water, which will be re-supplied to the rig via the storage tank 12 and the supply tank 16 and possibly contaminate the next set of meters to be calibrated. These problems would remain, even if the storage tank would have been supplied with a sterile liquid prior to the first calibration cycle. In addition, all the meters to be calibrated are connected in series on the rig described by Krause et al. Consequently a contaminated meter can contaminate all the following meters on the rig.

These results are mentioned in the present application and are overcome by the invention.

Draus discloses the use of clean water. Clean water is not necessarily sterile and could therefore contain components which may very well be considered as contaminants especially in biological or pharmaceutical applications. The clean water is supplied by a storage tank 60 and pumped through the flowmeter prover to be calibrated. During the calibration process at least part of this water is recollected in the storage 60 (see col. 4, lines 37 to 40). It is respectfully submitted that this suggests that this water is reused, which has already been in contact with the flowmeter prover.

According to the present invention, a sterile liquid, namely pure sterilized water or a sterile conductive solution is used and this liquid is never re-used. On the contrary, it is disposed into a drain 27 after it has been in contact with any device to be calibrated. Such is novel and not suggested by the references of record.

Even Krause et al in combination with the clean water described by Draus does not lead to the invention as claimed.

The Examiner mentions, on page 5 of the Office Action that "Krause's provers 22 -32 are suggestive of any meter to calibrate, suggestive of use of a weighing tank that (even) permits for more measurements." According to Krause et al, col. 5, lines 17 to 21, each of the prover tanks are provided with a pair of level switches for providing electrical output, when the liquid level in the respective tank is at predetermined levels. Thus a predetermined level corresponding to a predetermined volume is detected. A weigh tank, as described in the present application measures the weight of the medium it contains, regardless of the level. Applicant admits, that the use of weigh tanks for calibration purposes is known in the art, as is described on page 1, lines 20 to 30, of the present application. They are not known to be used in combination with a rig, however, that is operated with a sterile liquid, namely pure sterilized water or a sterile conductive solution, which is never re-used on the rig.

Krause et al uses a set up, where the meters to be calibrated are connected in series on the rig and the prover tanks are connected in series to the meters to be calibrated. Thus, a potentially contaminated meter can contaminate all the meters connected in series downstream of a contaminated meter and the prover tanks.

De Boom et al discloses tubing 134 for providing a return of fluid from a second flow meter array to a reservoir, which feeds the rig. De Boom et al teaches the use of flow meters to calibrate a meter under test, which is connected in series. It teaches nothing else of consequence relative to the present invention

None of the references, however, recognize the necessity for a sterile liquid, namely pure sterilized water, and for sending any liquid used on the rig down a drain to be disposed of. Accordingly, claims 9 - 15 are believed to patentably distinguish over the art of record.

It is therefore respectfully requested that the above noted amendments to the claims, which serve to overcome the rejections under 35 USC 112, be entered

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and claims 9 - 15 allowed as none of the references teach the use of a sterile liquid which is not to be reused. Alternatively, it is respectfully requested that the noted amendments to the claims be entered for purposes of appeal.

Respectfully submitted,
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